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Intelligence, practice and virtue: a critical review of the educational benefits of expertise in physical education and sport

Abstract

The paper calls for a re-evaluation of physical education's cognitive value claims, as this issue is fundamental to many of the conceptual difficulties the subject faces. Current epistemological challenges are reviewed before analyzing the structural connections between intelligent practice and intelligent virtues, and the possibilities for physical education to better articulate its' intrinsic and instrumental values claims. The paper evaluates arguments made on this basis and reviews revised curriculum planning and pedagogical practices which could support an enhanced focus on learners' wider aspirations and achievements; factors crucial for a virtuous life. While applauding enquiry into the possibilities for considering physical education as a moral endeavour, the paper raises concerns about conceptual clarity in intellectual and empirical accounts of virtue. The paper concludes by advocating further research on the interrelationship between intellectual and empirical accounts of skill, evaluation of learners' decision making and the aims of physical education and school sport programmes.

Keywords: intellectual virtues, moral virtues, practical wisdom, skills, expertise,

Introduction

In the last few years, authors from different philosophical perspectives have discussed the merits of a wide range of aims-related considerations associated with physical education. These include: the body and the place of physical activity in education (Ozolins, 2013); what it might mean to be a physical educated person (MacAllister, 2013) and developing greater connections between phenomenology and physical education (Stolz, 2013). Generally, there is much to commend such engagement with theory; and, there is agreement in this paper with Kirk's (2013) position that physical education could (subject to a certain theoretical self-restraint) flourish as an overarching umbrella term that accommodates contrasting strands of educational justification, on the premise that physical education can be a suitable learning context for initiation into a range of worthwhile social and cultural practices. However, there is a sense in all of this that one of the greatest of the challenges physical education faces: namely, that it lacks a wide ranging cognitive value is not being robustly enough addressed. This seems surprising, as it is this single issue which has caused so much difficulty for physical education in recent decades (McNamee & Bailey, 2010). Thus, while there is some agreement with McNamee's (2009) view that there is no requirement to construct value-arguments for physical education on the same basis as most other subjects, there is

also some unease with the claim that ‘anyone attempting to argue for the educational value of physical education on the grounds that the playing of games conferred a wide-ranging cognitive perspective on the world would be barking up the wrong tree’ (p. 17).

This sense of concern is fuelled by recent theorizing, principally by Annas (2008; 2011), which is premised on resurrecting in a modern guise the ancient-historical idea that practical skills are similar to practical virtues. Underpinning the thinking of Annas (2008; 2011) is an affinity between Csikszentmihalyi’s (1991) ideas of flow and philosophical discussions of pleasure; as for Annas harmoniously engaging in activity in an intelligent, focused and goal-directed way can be intrinsically rewarding. Furthermore, as one becomes more skilful and expert through intelligent practice, the more one is able to make virtuous decisions. Thus, what particularly distinguishes the recent contribution of Annas is her recovery of the idea that the intellectual structure of skills are similar to the intellectual structure of virtues, and specifically the close connection Annas sees between practicing skills to become expert and cultivating virtues to improve practical reasoning. Following this line of thinking might be appealing for physical educationalists as arguments cultivated on this basis could endorse the case that physical education can have both an intrinsic (in-subject) and instrumental (beyond-subject) value claim. This form of critique would be predicated on arguing that skillful practice can lead to the realization of higher performance and sporting standards as a result of being fully immersed in activities (intrinsic dividend) and also that learners can develop expertise through practice and are as a result more capable of making more virtuous decisions in their lives (instrumental dividend).

The critique of Annas (2008; 2011) is of course not without its contested claims and these are reviewed following a critique of some of the major epistemological challenges physical education currently faces. Thereafter, the main curriculum planning and pedagogical implications for physical educationalists in arguing that their subject can make a positive contribution to learners becoming

more skillful and virtuous are evaluated. In all of this it needs to be recognized that the author is not advocating that there is a clear connection between practical skills, practical reasoning and learners' moral development. What is being argued however is that the prominent line of skill/virtue thinking pursued by Annas (2011) merits detailed review, as it is incumbent on physical educationalists to keep abreast of influential philosophical thinking and to consider their associated implications for physical education. On this basis, space should be found within professional learning for reviewing possible connections between practical skills, practical reasoning and moral development.

Epistemological challenges for physical education

As Reid (1996a), McNamee (2009) and McNamee & Bailey (2010) have argued a good deal of the legitimacy problems physical education has faced stem from the 1960s, where the dominant critiques of the time often contained a 'common sense consensus' (Kirk, 1988, p. 45) that viewed physical education as essentially lacking in cognitive value. Many of these difficulties arose from Peters' (1966) highly influential analytical philosophical treatise which prioritized the development of the rational mind, and which considered games playing to be non-serious and morally unimportant. Peters (1966) discourse on educational values often merged with Hirst's (1974/1993) forms of knowledge critique, and this led to secondary school curriculum being framed according to categories of subjects: a development which posed two serious problems for physical education. Firstly, as far as the 'unexamined' or 'core' versions of physical education are concerned (i.e., the type of programmes *most* learners experience most weeks) it often placed the subject in a rather marginal position with only limited learner contact time and modest school support (Reid, 1996a). Secondly, for the newly emerging examinations awards in physical education (courses which *some* learners choose), claims for curriculum worthiness are mostly based on concurring that the Peters-Hirst academic conception of education is essentially correct, but yet with some careful adjustment and redefinition, physical education can be accommodated within it (Author, 2007). However, in the years since, the frequent bifurcation of practice and theory has created a number of on-going

issues around the relative importance afforded to practical and propositional knowledge in the design and assessment of awards. For example, course arrangements often encourage practically-based learning experiences but then rely for much of the assessment evidence on learners' language-based oral or written answers. This remit has proved difficult to handle for all but the most capable learners and teachers; at least in ways which are convincing and authentic and not rote-derived (Author, 2007).

In response, Reid (1996b) ventured from the outset that the Peters-Hirst academic conception of education was flawed, as it insufficiently valued practical knowledge, which it was argued contained sufficient inferential evidence of rational powers. However, there are conceptual difficulties associated with this view; the first being the extent to which we can infer from practical actions. As Barrow's (2008, p. 281) study of education and the body notes, the difficulty of activities such as dance is that if such activities are to define themselves by being a unique communication medium, then dancers are 'going to have to dance the argument out'. This is, Barrow argued, problematic as on this basis 'we are doomed forever to fail to understand the argument if we are not dancers' (Barrow, 2008, p. 281). And while it could be argued that dance is a non-verbal form of communication and therefore it is a category error to consider that it requires to conform to the same standards of argumentation, Annas (2011, p. 80) appears aware of this issue when noting that 'even those who do have experience in the relevant skills find it very hard to convey to those who do not, what it is like to exercise the skills ...'. Therefore, giving extended assessment credit to practical performance standards (e.g., in examination awards) remains a concern, as it is difficult to communicate their learning benefits, as they only provide modest evidence of how practical knowledge is of wider educational value. Even, Arnold (1979) who tried at length to articulate the coherence between meaning and movement, somewhat reluctantly came to acknowledge that language provides the way forward, provided language does not become a substitute for movement. Nevertheless, measuring propositional knowledge gains without taking

into account much by way of learners' practical experiences also seems rather at odds with the practical nature of the subject, with the resulting risk that physical education becomes studied rather than experienced (Author, 2007; 2008).

Compounding these difficulties is noting that 'core' physical education fares little better under the lens of analytical philosophy e.g., Peters' (1966, p. 159) considered that skills (of the type common to practical activities and games) are not worthwhile to learn to any great extent as they lack 'a wide ranging cognitive content' as they are based on mere know-how or 'knack'. As if this outlook was not gloomy enough, physical educationalists often appear to confirm the Peters' case by producing shallow, introductory-level, technique-laden, repetitive and rather anodyne and ineffective multi-activity curriculum programmes, where activity choice (rather than the drive to aspire) is the device used to try to keep learners interested (Kirk, 2010). Amidst these difficulties, this paper focuses on arguments for practical learning gains being desirable both for their intrinsic benefits and on the instrumental basis that they are capable of being translated into first-person narratives of value and worthwhileness. To achieve these varied goods, it is 'core' physical education provision rather than examination awards (a point about which Reid 1996a, 1996b was rather opaque) that is the main context for critique. The paper therefore is concerned with two fundamental issues: firstly, how can learners in their attempts to develop expertise through intelligent practice perceive their experiences to be interesting and worthy of sustained commitment? Secondly, how can the dividends of this type of learning experience articulate with the realization of wider societal ambitions e.g., to what extent and in what ways can achieving expertise through practice equip learners' with the expertise, skills, and knowledge to make informed active participation decisions at school and during their later life?

Two recent studies support enquiry into the pursuit of these ambitions. Firstly, Reid (2013) researched in naturalistic terms, the philosophical issues surrounding knowledge, cognition and

agency in relation to physical education and argued that a certain levelling of the knowledge playing field is needed, as neither the neuro-computational and dynamic-embodied cognition theories he reviewed supported the idea of theoretical knowledge being of greater importance than practical knowledge. On this basis, Reid (2013) considers that the activities common to physical education programmes can benefit the development of person-centred educational goals. Secondly, Lee & Taylor (2013) through a content analysis of moral education trends over the last forty years between 1971 and 2011 highlight the demise of interest in analytical philosophical concerns and note instead an extensive increase in research on learners' moral development. The authors found, for example, that the contribution of Lawrence Kohlberg (whose work is synonymous with stages of moral development) featured in nearly half ($f=214$, 49.3%) of the titles and abstracts in which scholars ($n=434$, 45.9%) were named in the *Journal of Moral Education*. By contrast, less than one per cent of articles ($f=9$, 0.2%) specifically referenced that the work of Richard Peters. These developments support further moral philosophy-informed research in the broad area of approaches to physical education, where standards of excellence and the cultivation of desirable virtues are sought.

Intelligence, practice and virtue: a theoretical introduction

Philosophers from the Ancient Greek period onwards were interested in the connections between practical skills and practical virtues. However, as Hacker-Wright (2015) notes, in contemporary philosophy much of the work has been ignored until recently due to the dominance of anti-intellectualists accounts of skill. Plato's account of skill learning is underpinned by experts providing feedback on initial learning with more advanced learning becoming increasingly governed by self-guided reflection. Aristotle's account is rather different and more reliant on the ability to perceive what to do and how to make virtuous decisions in certain situations. The account of intellectual virtues by Annas is underpinned by Plato, where the early dialogues of Socrates provide examples of the expert knowledge people bring to bear in completing ordinary practical

skills. In this light, virtues are not defined by measurement against a set of idealized rules but rather governed by the gaining of skills which are beneficial to our happiness and flourishing. Thus, if we are sufficiently motivated, we will be keen to seek out ways of using our practical skills intelligently, just as we will be enthusiastic to think through our reasons for making the decisions we do as we interact with others. Annas (2011) argues that the connection between practical skill and practical reasoning can avoid being narrowly conservative and culturally relative, on the basis that as expertise grows it helps us towards independent action, and to become critical of our situation (when necessary) as we develop intelligence. This holistic view of expertise ensures that as skill levels become more expert (e.g. in a physical education context of learners moving with greater control, precision, fluency and economy of effort), so it is that virtuous thinking can become more refined and well-informed (e.g., in terms of the decisions learners make when interacting with other learners). This does not mean that our responses become one dimensional, automatic in nature and less spontaneous - rather, the skillful performer manages as a virtuous person to come up with appropriate responses at the appropriate time. As such, virtues contain a perceptual capacity and are more than simple rule governed measures. These reasons for action are largely consistent with Nussbaum (2011) capabilities building approach which encourages people to make full use of their senses to imagine, think and reason. Both approaches enable learners to critique their circumstance and comprehend how ways of originally responding and behaving may conflict with their newly independent actions. Once aware of this learners can increase their chances of achieving virtuous things in our lives and take pleasure in doing so.

In Annas's (2011) view it is not necessary that all skills are underpinned by references to unifying principles and explained in terms of skilled actions. What matters is that there are some skills which display these components. Therefore, in some instances, skill responses can appear to have arisen without thinking (e.g. when recovering following a slip to play an unorthodox tennis return) even though the return shot is not something it would be expected a novice could create. The same applies in terms of practical virtues e.g., a young skier who sees another skier fall and who stops

very quickly, climbs uphill and helps them get their skis back on and checks that they are uninjured is displaying intellectual thinking coupled with appropriate practical action. Furthermore, this is something the virtuous person will find pleasant and effortless to do as they are fully engaged in the flow of the activity and empowered to act as they see fit. Annas's (2008; 2011) thinking is underpinned and informed by Csikszentmihalyi's (1991) ideas of flow, as the requirement for thought and concentration is dependent on habituation and practice, and this is best gained through experiences which contain a clear structure and desirable goals. Annas (2008; 2011) considers that the connections between flow and pleasure connect plausibly with two features of an Aristotelian account of virtue: firstly, virtuous activities are experienced as intrinsically worthwhile and secondly, being virtuous is not a forced or artificial matter bounded by trying to do the right thing, but rather is defined by acting in an unimpeded way. As Annas (2008, p. 32) describes it 'flow comes not from mindless letting go but from being in control of your activity in the right way.' This provides opportunities for deliberation and reflection as the virtuous person has the capacity to respond in dynamic rather than predetermined routinized ways.

Criticisms of practical skills and practical virtues theorizing

One concern of critics is that intellectual skills common to practical activities while not innate may still be fundamentally different from intellectual virtues. Baehr (2011, p. 30) considers that while 'skills may involve a complex psychology, they do not bear significantly on personal worth' as 'skills, while resembling virtues on account of being cultivated, need not involve the kind of admirable intellectual motivation essential to intellectual virtues' (Baehr, 2011, p. 32). As such, high level practical skills are not a measure of being good or less good in the same way that applies to intellectual virtues, as skills are specific to context and task, whereas being virtuous is a more generalized measure. Similarly, Hacker-Wright (2015, p. 3) questions whether there is a greater gap between skill and practical wisdom than Annas (2011) acknowledges, on the basis that 'practical wisdom requires an insight into human life that is not required by any skill'. Hacker-Wright (2015)

also considers that practical wisdom and skills are different in that practical wisdom requires a clear concept of worthwhile ends which skills do not. This 'should lead us to regard practical wisdom as a distinctive master virtue' Hacker-Wright (2015, p. 2). Many physical educationalists are familiar with this line of virtue/skill distinction, as their teacher education programmes have often required them to grapple with Peters (1966) view that it would be fanciful to believe that games such as cricket have any serious moral purpose, as cricket 'is classed as a game because its end is morally unimportant. Indeed, an end almost has to be invented to make possible the various manifestations of skill' (p. 158). On this view, it is important not to conflate moral virtues and intellectual virtues as they are not one and the same thing.

A further claim against Annas's (2011) account of skills and virtues is that it appears counterintuitive (Stichter, 2007); in that, in terms of skill learning, some people can acquire skills without necessarily understanding the principles which underpin the skill or of being able to provide a detailed account of their skilled actions. For example, very often young alpine skiers (e.g., five to seven years) can remain in dynamic balance as they travel downhill. However, while these young skiers have an ability to see what to do by means of steering and turning their skis they may not necessarily understand the principles or rules which underpin their skill. Moreover, it would be improbable to expect them to provide a spoken or written account of their actions, with all that this might entail for referencing axis of rotation, planes of movement and self-management of centrifugal forces. What these young skiers have therefore are skills gained by distinctive experience rather than skills grasped through reference to universal movement principles (Jacobsen, 2005). On this basis, Stichter (2007) considers that the account of virtues provided by Annas (2011) is overly intellectualist, founded as it is on deliberation and certainty, relative to the more flexible, experiential and time-informed habituation accounts of skill. To this extent, Stichter (2007) claims that Annas has misrepresented Aristotle's position on skill learning; and that it is by sticking more closely with general truths in everyday learning (e.g., the flatter the skis are and the straighter they

point down the hill the quicker you will travel) rather than seeking a more detailed unified grasp of movement principles that benefits skill learning (Dreyfus, 2002). Swartwood (2013) considers that his version of the expert skill model, informed as it is by recognition primed decision making, has the capacity to resolve the dispute between Annas and Stichter through revealing how ‘wisdom has both a substantial intuitive *and* (original emphasis retained) a substantial deliberative and meta-cognitive component’ (p. 523). In arriving at this position, Swartwood (2013) is critical of the Dreyfus references Stichter (2007) uses to inform his theorizing, as the research by Dreyfus was primarily informed by relatively contained (closed) skills such as driving rather than based on research involving open skill contexts where more complex choices and challenging performances issues exist.

Besser-Jones (2012) also has doubts over whether Aristotle’s claim that virtuous people take pleasure from virtuous actions is true and as such considers that Annas (2011) is incorrect to consider that intrinsic motivation links to virtuous activity. Informed by psychological accounts of motivation, Besser-Jones (2012, p. 99) considers that the ‘reason why we do not enjoy virtuous activities is *not* (original emphasis retained) because we lack virtue: it is because our psychology is not constituted to find virtuous activities, considered in themselves, enjoyable.’ In order to fuse a situation where the appeal to interest through intrinsic motivation can chime with extrinsic motivational appeal to values, Besser-Jones (2012) considers that the virtuous person needs to be extrinsically motivated, in ways which are more autonomous than controlled. As such, positive psychological functioning depends on ‘satisfying ascribable feature of human nature, such as our need to be self-determined and have control over our lives’ (Besser-Jones, 2012, p. 105). That said the views of Besser-Jones (2012) are controversial in that arguably they underappreciate Aristotle’s argument that the virtuous person not only does what is right, but delights in doing what is right and good. On this basis, being virtuous is more than some form of duty and therefore someone who finds being virtuous difficult or dreary is not acting virtuously.

In summary, these three areas of concern (i.e., the extent of the gap between practical skills and practical wisdom, counterintuitive and questions over whether virtuous people take pleasure from virtuous actions) suggest that the twinning of learning skills with learning moral virtues is not without its considerable challenges and counter claims. On this basis, not only should physical educationalists avoid false starting on the prospect of Annas's theorizing but further analysis of Annas's theorizing and the philosophers which inform her thinking is needed. For example, the limitations of linking skills with virtues and practical wisdom were recognized by Aristotle himself when he noted that: 'while there is such a thing as excellence in art, there is no such thing as excellence in practical wisdom' (NE; EE, VI.5, 1140b21-23). The difficulty in practical wisdom being a generalized excellence measure rather than a specific measure was further evident when Aristotle noted that: 'Socrates in one respect was on the right track while in another he went astray; in thinking that all the virtues were forms of practical wisdom he was wrong, but in saying they implied practical wisdom he was right' (NE; EE, VI.5, 1144b18-20). On this basis:

it might be contended that the virtues exist in separation from each other; the same man it might be said, is not best equipped by nature for all the virtues, so that he will already have acquired one when he has not yet acquired another (NE; EE, VI.5, 1144b32-35).

Implications for theory and practice in physical education

That said what the above concerns reveal is that in terms of educative value, the skill context within which learning takes place is crucial to establishing positive connections between individual interest (intrinsic value) and contributing to becoming a wise and virtuous agent (instrumental dividend). For as Annas (1995, p. 233) notes: 'It is clear that Socrates is not interested in skills for their own sake. He is concerned with the idea that virtue is, or is like a skill'. Similarly, Reid (2013) considers that skills are not necessarily virtuous in themselves but they reflect the practical nature of the

subject, are helpful for developing expertise and an important part of pedagogical content knowledge for teachers. Relative therefore to a good deal of current practice (Kirk, 2010; 2013), a deeper and more extended engagement with practice should increase opportunities for learners to see the benefit of physical education as part of a moral undertaking where the emphasis is on learners getting into the habit of making virtuous decisions on an instantaneous basis (Author & Stolz, 2015). This is consistent with Sproule et al., (2011) advocacy of promoting perseverance and of more meaningful and sustained performance practice becoming a more obvious component of learning and teaching in physical education. These avenues for development hint at ways of taking forward Annas's (2011) thoughts on skill, virtue and moral agency and of how these might impact on curriculum planning and pedagogical practices.

Curriculum planning:

Informing Annas's (2011) view on virtue and happiness (if not skills) are Aristotelian influences, which enlighten how as our life progresses we review our broad aims and the skills we need to achieve these aims. This perspective benefits from being fully immersed and engaged in practical learning (intrinsic perspective) and of building constructive connections with longer term eudaimonistic flourishing (instrumental perspective). At face value, progress on this basis would be welcome in physical education, for as Kirk (2013, p. 975), notes achieving lifelong physical activity gains remains the subject's 'most cherished ambition'. In this respect, the most evident implication of the skills and virtues theorizing of Annas (2008; 2011) is in recognizing the importance of time, experience and practice for developing expertise. Curriculum planned accordingly would typically contain fewer activities and a longer and deeper engagement with those that are part of programmes, on the basis that the exercise of practical reasoning following skill learning should provide learners with opportunities to become virtuous persons. In this way, the habits of practice become part of the process of learning and are 'not in conflict with the fact that it is *intelligent*' (original emphasis retained) (Annas, 2011, p. 169). Intelligence is therefore central to Annas's

(2011) articulation of how complex skills require understanding and adaptability, and not merely the ability to copy; a view broadly compatible with Dewey (1938) who contrasted the benefits of moving from learning through imitation to learning through interaction as a method for helping learners understand the benefits of practice and of how they can learn from our mistakes (Author & MacAllister, 2013).

One dilemma schools face in following Annas (2011) is how to balance the importance of learners being able to choose activities on their own terms - as this requirement is needed for the possession of a virtue in the view of some e.g. Zagzebski (1996) relative to Annas's (2011) view that recognizing the essential expert-learner relationship is crucial for understanding virtuous actions. Bridging this dilemma may well benefit from furthering the notion of apprenticeship in physical education, as this would be compatible with a social practices view of virtue ethics (MacIntyre, 2007); a view of thinking which has informed popular models in physical education such as sport education, where there is an emphasis on: prolonged team engagement with activities; shared decision making; respect for others and enhancing participatory virtues such as honesty and fairness (Kirk, 2013). However, a concern Annas (1995, p. 238) notes is that 'the emphasis on practices and traditions leaves the individual little or no role for moral discovery or criticism.' Therefore, within models such as sport education learners' conformity and compliance should not necessarily be viewed as part of a shared consensus. As such, choice of roles and remits need critiqued and evaluated in terms of their evident fairness and avoidance of narrow interpretation. This position is more compatible with Annas's (2008, pp. 31-32) later view that flow is achieved not only by setting goals but by 'responding to feedback, paying attention to what is happening, coming up with new solutions to unprecedented difficulties.'

Pedagogical practice

In terms of linking enjoyment with virtue (and of what this might entail for the practicing teacher) Annas (2011, p. 81) provides sympathy more than advice when noting that there is 'little that can be

said to the reluctant soccer player or pianist other than the apparently unhelpful suggestion that as they get better at it they will enjoy it more and find it more rewarding.’ So how can physical educationalists respond to Annas’s three requirements of a genuine skill: i.e. that it can be taught; underpinned by unifying principles and possible for experts to provide an account of their skilled actions? In responding to the requirement that a skill must be able to be taught, Annas (1995, p. 231) notes ‘a skill is more intellectually complex than what Socrates calls a ‘knack’, something that you can pick up, by doing it or watching somebody’. Peters (1966, p. 155) frequently drew upon the influence of Socrates in his major work *‘Ethics and Education’* and only a few pages prior to his rather disparaging remarks on the value of games, Peters (1966, pp. 158 & 159) noted with regard to Socrates, that there must be ‘skilful and appropriate ways of bringing about’ the ends people value. Thus, while we may never know for sure, it does appear that Peters’ term ‘knack’, used to describe the limited gains possible from learning the type of motor skills which are fundamental to physical education programmes, was deliberately chosen rather than the result of a somewhat inelegant word choice. This is unfortunate, for as Surprenant (2014, p. 534) notes: ‘Socrates is unique in discussing the role of physical education in the process of moral education.’ Furthermore, following Annas (2011) the term ‘knack’ may also be inaccurate; as for Annas skills of any complexity require intelligent and diverse forms of practice, the capacity to learn from mistakes and the drive to aspire. The requirement that skills must be underpinned by unifying principles necessitates teachers having the capacity to teach across the range of contexts that currently make up the field of physical education. Only by having a breadth of subject knowledge expertise of activities is it possible for teachers to think flexibly and to improvise in their teaching in ways which maximize learning and enhance the quality of learners’ experiences. This point resonates with Kirk’s (2010) concerns that overly academic influences on teacher education programmes since the mid-1970s and confusion about the relationship between physical education and sport has led to the continuation of shallow learning programmes which are taught by teachers who lack a sufficiently detailed subject knowledge of practical activities. Furthermore, in constructively

responding to Besser-Jones (2012) recommendation that an appeal to interest (intrinsic motivation) needs to connect with an appeal to values (extrinsic motivation), teachers should be minded to balance moments when learners are in the flow and when their skills and abilities are thoroughly engaged in practical challenges with times when there is a learning focus on the virtues of being good participants and coming to their own reflective evaluations on the extent to which they are good at, for example, accepting decisions, working constructively with others, getting winning and losing into perspective. In this way, teachers would be playing their part in opening ‘up the minds of young people to precisely the kind of critical appreciation of basic human values and aspirations which is the hallmark of moral understanding’ (Carr, 1998, p. 131).

Conclusion

The aim of the paper has been to articulate a line of thinking which reviews the extent to which establishing more detailed and feasible connections between practical expertise and practical reasoning can indicate to learners why cultivating proactive participation habits and values is a worthwhile idea in physical education and in the context of their wider life. This task has not been without its challenges for it might well be considered that there is philosophical doubt over how far the skills and virtues analogy Aristotle initially drew upon in *The Nicomachean Ethics* can be extended. Nevertheless, this paper has drawn upon the contribution of Julia Annas as her theorizing on the connections between intelligent practice and intelligent virtues, might help inform how physical education could better articulate its’ intrinsic and instrumental values claims. However, before considering further how Annas’s thinking could help shake physical education from its mix of malaise (i.e., repetitive shallow introductory core programmes) and confusion (i.e. on how to measure practical experiential learning and propositional knowledge learning gains in examination awards) research which contrasts intellectual and empirical accounts of skill is merited. Such research is especially needed at the acquisition stage of learning i.e., at a stage of learning beyond the beginner stage where learners are often dependent on feedback from teachers but before

learners' become expert in skills where very often they can solve problems automatically and without recourse to deliberation and review. These theoretical and applied studies would be particularly useful for analyzing the instantaneous rather than routinized nature of learners' decision making and actions e.g., investigating learners' views on the benefits of physical education in terms of whether they found volunteering a source of genuine happiness or not.

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